## **REMARKS**

Reconsideration of the application, as amended, is respectfully requested.

The specification has been amended to insert appropriate subheadings to bring the application more into conformance with the usual U.S. form.

Claim 22 has been amended to delete, without prejudice, the "preferred" type of oil, and claim 28 is presented to recite the preferred oil which was deleted from claim 22. No surrender of subject matter is intended.

Claim 1 has been amended to specify that water is added to increase the levels of polyphenols. This is supported at page 2, last paragraph. Claim 24 has been amended to recite that water is added to increase the level of polyphenols as set forth with respect to the second embodiment of the invention on page 8 of the present specification. New claim 29 has been added to recite an intermediate range of water % within the broader 1 to 40 weight % disclosed, for example, at page 3, line 11.

Giovacchino et al., "Effect of Extraction Systems on the Quality of Virgin Olive Oil" discloses in the abstract that "[p]olyphenols and o-diphenols contents and induction times are higher in oils obtained from good quality olives by the pressure system because it does not require addition of water to the olive paste. The centrifugation system requires the addition of warm water to the olive paste and helps to obtain oils with a lower concentration of natural anti-oxidants." The article discusses the addition of small quantities of water (3-5 L/100 kg of olives) in a pressure system during crushing kneading and washing. In the second column on page 1189 it is said that phenols present in olive paste are soluble in water and oil. Addition of water to the

paste alters the partition equilibrium between liquid phases and causes a reduction of phenol concentration through a dilution of the aqueous phase. The addition of water to olive oil removes water-soluble phenols. In the second column of page 1191, Giovacchino et al. indicate that natural anti-oxidant content of virgin olive oil is significantly affected by the extraction system. The article cites similar results in some studies, but other which are contradictory. The results are said to show the total polyphenols and o-diphenols contents of olive oil extracted by centrifugation are significantly lower than those of oil extracted with either a pressure or percolation system. Water is said to lower the concentration of phenols in the aqueous phase because of dilution and to diminish the concentration of phenols in the oily phase because of partition equilibrium.

The Office points to no teaching in Giovacchino et al. that water should be added to increase the level of polyphenols. Quite the contrary. Nor does the Office point to any teaching of addition of 6% of water (or more) during the crushing step. Therefore, it is respectfully requested that the application, as amended, be allowed.

Attached hereto is a marked-up version of the changes made to the specification and clams by the current amendment. The attached page is captioned "<u>Version With</u> <u>Markings To Show Changes Made.</u>"

Respectfully submitted,

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## **VERSION WITH MARKINGS TO SHOW CHANGES MADE**

In the specification
The subheading beginning at line 2 of page 1 has been amended as follows:
Background and Summary of the Invention
The subheading beginning at line 1 of page 9 has been amended as follows:
Detailed Description of the Invention
The subheading beginning at line 1 of page 15 has been amended as follows:
Abstract of the Disclosure
Line 1 of page 11 has been amended as follows:
US ClaimsWhat is claimed is:
In the claims:
Please amend claims 1, 22, and 24 and add new claims 28 and 29 as follows:

- 1. (Amended) Method for processing olives obtaining an olive oil, comprising the steps of
- a) crushing the olives through a sieve and adding water in an amount of 1 to 40% by weight, based on the weight of the olives to increase the level of polyphenols;
  - b) malaxation of the olives obtained in step a);
  - c) decanting the olive oil;

wherein in step a) water is added in an amount of 1 to 40 % by weight, based on the weight of the olivesthe level of polyphenols in said olive oil is increased.

- 22. (Amended) A food product according to claim 21, which is a vegetable oil, preferably an extra virgin olive oil.
- 24. (Amended) A method for preparing an olive paste, comprising the steps of
  - (d) Crushing olives through a sieve, wherein water is added in an amount of 1 to 40% by weight based on the weight of the olives to increase the level of polyphenols;
    - (e) malaxation of the olives;
    - (f) separating olive kernel particles from the paste wherein the paste has a high level of polyphenols.
- 28. (New) The food product according to claim 22, which is an extra virgin olive oil.
- 29. (New) A method for processing olives obtaining an olive oil, comprising the steps of
  - (d) crushing the olives through a sieve;
  - (e) malaxation of the olives obtained in step a);
  - (f) decanting the olive oil;

wherein in step a) water is added in an amount of 6 to 40% by weight, based on the weight of the olives.